

Architectural Program

Sunnyside Ave and Naismith Drive Reconstruction

KU Project No. Lz_U-12531, A-014342

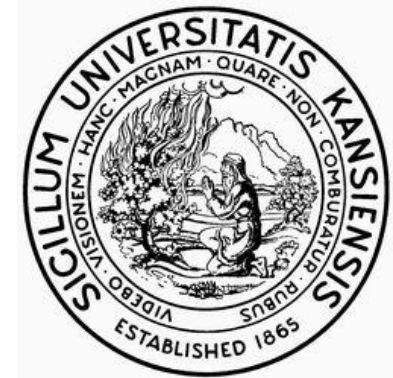
Date: December, 2020

Prepared by:

The University of Kansas, Lawrence Campus

KU Transportation Services

Office of Facilities Planning and Development



Programming Committee

Donna Hultine, Director, Transportation Services

Mark Reiske, Director, FPD

Gary Mohr, Project Manager, FPD

Table of Contents

Item	Page
Programming Committee	2
Table of Contents	2
Introduction	3
Project Overview	3
Design Criteria & Goals	4
Space & Program Needs	4
Site Improvements & Infrastructure	5
Deferred Maintenance	5
Design Standards & Consultant Services	6
Code Requirements	6
Historic Preservation Reviews	7
KU - City Cooperation Agreement	7
Impact on Overall Campus Space	7
Annual Maintenance & Operation Costs	7
Proposed Project Delivery Process	7
Project Budget	8
Project Schedule	8
Existing Site Plan – Overall Scope	9
Existing Utility Plan - Naismith Drive	10
Existing Utility Plan – Sunnyside Ave	11

Introduction

Sunnyside Ave and Naismith Drive are asphalt streets with concrete curb and gutter. Sunnyside Ave is a critical arterial route providing open access for students, visitors, faculty and staff during periods of time when access to parallel Jayhawk Blvd is restricted and thus it is a heavily traveled street which includes bus service. Traffic and weather conditions have greatly stressed the asphalt leading to significant maintenance needs.

While replacing asphalt with concrete has a higher first cost, the life cycle costs are expected to be lower with the reduced maintenance requirement for concrete. Concrete will provide better and safer driving surface and is consistent with the university's approach to reconstruction of other major roads on campus.

Project Overview

Replace existing asphalt pavement with concrete on Sunnyside Ave and Naismith Drive from the intersection with Sunflower on the east and extending west to Naismith Drive and north to 15th street. New work will include replacement of existing curb and gutter, sidewalks, improved storm water management and replacement of aged utilities as needed within the limits of construction. Improvements will include the addition of street trees/landscaping where feasible and compatible with the campus Landscape Master Plan. Street and pedestrian lighting will be upgraded to comply with current campus design standards including the replacement of existing metal halide luminaires with LEDs. Existing crosswalk location and configuration will be reviewed and improved as needed.

The design will be awarded as a single project with the expectation that construction will be phased over multiple summer construction periods based on available funding. This

program is for the design stage only but includes a conceptual overview of anticipated construction cost and scope.

Reference site map in appendix for general scope information.

Design Criteria and Goals

The design for this project shall address the followings needs, goals and objectives:

- Provide an aesthetically appropriate and sustainable travel corridor consistent with the KU Landscape Master Plan and the campus sustainability plan.
- Create a roadway that is safe for motorists, pedestrians, bicyclists and transit vehicles, which is also cost-effective to maintain.
- Complete the work within the design and construction schedule, while maintaining high standards of quality in all areas.
- Provide smooth, uniform slopes with required construction tolerances to minimize vibration generated from the pavement adjacent. Haworth Hall.
- Integrate replacement of Haworth Hall south side service drive and lot into project.
- Address the operational needs and goals of KU Transportation Services.
- Improve the storm water handling capabilities of this road segment and intersecting roadways. Strive to enhance storm water detention/retention and pretreatment where feasible.
- Evaluate condition of existing underground utilities and tunnels, including potholing and/or video inspection and design utility replacements as directed by KU.
- During design, evaluate in detail all feasible options for potential cost savings. With the Owner, determine those adjustments which will be implemented in order to maintain the high quality of the road system, while minimizing costs.
- Integrate accessible features within the work, in full compliance with current ADA requirements.

- Intersections shall include curb ramps and cross walks, and shall connect to sidewalks, bike trails and walks to buildings.
- Existing accessible paths of travel shall be maintained.
- Parking and loading zones shall provide compliant cross-slopes and access aisles.
- Design shall include provisions for temporary accessible routes of travel during construction.
- Maintain continuous utility services and facility services needs during all phases of the project.
- Develop and implement a proactive and collaborative team approach to delivering the overall project on time and within budget.

Space and Program Needs

Proposed improvements include the following items, which will be prioritized in collaboration with KU and which shall be completed to the extent that current funding allows. Alternate bids will be taken for flexibility in bid awards & overall phasing.

- Air Intakes: Protection of all building air intakes and/or HVAC components is required in areas that may be affected by construction dust and debris.

Telecommunications & Security

- Existing wireless access points shall remain or be relocated. Additional wireless access points may be added, as determined by KU-IT.
- Security cameras shall remain or be relocated. Additional security cameras may be added to provide adequate coverage of the roadway and pedestrian corridor, as determined by the KU Public Safety Office.

- Protection of existing critical IT infrastructure routed along the Sunnyside corridor will be required.

Site Improvements & Infrastructure

Site Improvements

- Installation of a storm water system, which shall, at a minimum, comply with the concepts within the Black & Veatch 1993 University of Kansas Comprehensive Storm water Study.
- Replacement of aged water mains as directed by KU.
- Pavement replacement will include on street parking areas.
- Preparation of the road and sidewalk subgrade, and reconstruction of the street and sidewalk systems in a manner consistent with the recommendations of the Campus Heritage Plan, Landscape Master Plan and Campus Master Plan.
- Sub-base stabilization as required to provide a stable sub-base for new surface features.
- Evaluation and design of new street pavement, based upon consultant review of traffic types, patterns and frequencies.
- Design of new sidewalks along the entire route including connections to existing sidewalks.
- Accessible paths and required exiting will be maintained or enhanced from all buildings. Temporary accessible parking locations and accessible paths shall be provided as necessary to serve all existing buildings.
- Appropriate provisions shall be included to address re-routing of pedestrian, vehicular, delivery and transit traffic in this area during construction.

- Landscape plantings, lighting and streetscape improvements shall be included, appropriate to the context campus and consistent with the Landscape Masterplan.

Utilities & Infrastructure

Evaluate all existing underground utilities within the corridor and upgrade deteriorating lines as directed by KU.

- Upgrade and/or add storm drainage as required, including collection, filtration and detention as appropriate.
- Site lighting shall be upgraded to support the indicated improvements.
- The existing utility tunnel crossing Sunnyside north of Robinson will be evaluated by the AE to confirm structural integrity and waterproofing and rehab needs. Design services will include recommended improvements as directed by KU. Abatement of hazardous materials within the tunnel will be under separate contract.

Hazardous Materials

The KU Environmental Health & Safety Office will perform tests of existing materials which will be affected by the project work, in order to determine if they are asbestos-containing and to solicit proposals from abatement contractors.

KU's standard policy is to remove all hazardous materials when undertaking major renovations.

Deferred Maintenance

The reconstruction of Sunnyside Ave and Naismith Drive is part of the University's ongoing maintenance program and will address:

- Deteriorated pavement and curbs.
- Deteriorated sidewalks and deficient accessibility.
- Storm drainage and other deficient/deteriorated utilities.

Design Standards / Consultant Services

The architectural/engineering (A/E) team shall comply with the latest provisions of the University of Kansas *Design and Construction Standards*, as maintained by the Office of Facilities Planning and Development (FPD), posted online at FPD's website at: <http://www.fpd.ku.edu/standards>

- The A/E team shall also comply with supplemental updates to these standards which may be issued during the course of the project.
- The A/E team shall comply with KU Audit and Strategic Sourcing guidelines, also posted at the FPD website.
- The Owner's Representative shall be a FPD staff person assigned to serve as KU's Project Manager, and who shall be the primary point of contact for all communications between the Owner, A/E and Contractor.
- Electronic Files: Consultants shall deliver to KU a complete set of electronic files for all drawings and specs for each design submittal, bid set & as-built documents.
 - Each set of electronic files shall include both PDF and AutoCAD .dwg files for each drawing sheet.
- Physical or 3D/CAD models, if produced by the consultant to explain the design, shall be delivered to and remain the property of the University.
 - Photo-realistic renderings may be required during the design phase to clearly communicate the proposed design options, and for the Owner's use in media distribution, fund-raising and other purposes.
- Program Verification: A/E shall review and confirm all program needs with KU client/DCM, and shall reconcile the proposed project scope with the available funding.
- State Contracts: Since this project is considered to be state funded, A/E selection and contracting will be via State of

Kansas, however KU's amended AIA standard contract will be utilized per agreement with OFPM.

- KU will provide access to all buildings and site locations; provide access to and reproductions of record copies of drawings, specifications, and shop drawings as may exist for the systems and environs; and provide consultation with technical and professional University staff involved in facility and utility operations. AE is responsible for field verification of all existing conditions.
- KU will contract with a third party for geotechnical services required for this project, including sub-surface investigations, and construction testing and inspections.
- KU may elect to have the consultant complete the construction documents for all phases of work during Phase One of the project for bidding as a single construction package, or KU may elect to have the consultant only complete each phase as the available funding and scope are confirmed for the next phase to be bid and constructed.

Code Requirements

- Codes currently used on KU projects include the following:
 - International Building Codes, 2018 edition
 - Kansas Fire Prevention Code, KSFMO, current edition.
 - ASHRAE 90.1, 2016 edition (plus 30% performance improvement).
 - Other codes as listed at the State of Kansas, Office of Facilities & Procurement Management – Design, Construction & Compliance (OFPM-DCC) website.
- Construction Exiting: Temporary fire-rated exit corridors shall be provided through the construction site, if required to protect and direct occupants from all required exits in the surrounding occupied existing buildings to a public

way. They shall remain in-place at all times while construction work is underway.

- Considerations shall be made for fire truck & emergency responder access to required areas at all times during construction.
- ADA Compliance: KU seeks to design facilities and public ways which are universally accessible and which provide accessibility for all in an integrated, discreet manner.
 - Project scope will include all temporary and permanent code and ADA-related improvements that are required in order to complete the proposed scope of work, including required ADA improvements along accessible paths of travel to primary function areas.

Historic Preservation Reviews

The project **is not** located within 500 feet of any properties listed on the City, State or National Registers of Historic Places thus no environs reviews will be required for this project.

KU - City Cooperation Agreement

KU and the City of Lawrence entered into a jointly-beneficial Cooperation Agreement in April 2005. It designated a compatibility buffer zone that extends 150' deep onto KU's property from the primary exterior boundary of KU's property.

New construction on the KU Lawrence campus within the 150' compatibility buffer zone must comply with designated City land-use regulations, standards and requirements.

- This project **is not** located within the 150' buffer zone, and compliance with the cooperative agreement is not required.

Impact on Overall Campus Space

This project is repair and replacement of roadways, sidewalks, parking and site infrastructure and will not add to or remove any space from the University's space inventory.

Annual Maintenance & Operating Costs

When funding maintenance for roadway and infrastructure improvements the University will prioritize funding for the life of the improvement as a foundational priority. These funds will typically come from tuition revenue, State general funds and other forms of revenue. In addition to these funds, Educational Building Funds (EBF) may be used for the maintenance of this improvement. The project costs for this project will also include a infrastructure renewal fee equivalent to 1.5% of the project cost that can be used for infrastructure maintenance. No new state funding will be required to cover these costs.

Proposed Project Delivery Process

Competitive Bid

The University of Kansas proposes to use a traditional but expedited design-bid-build process for this project. The Owner and consultant team shall jointly develop strict pre-qualification criteria, designed to ensure that contractors approved to bid this project have a proven track record of delivering similar projects, under a similar expedited construction timeframe, and successfully meeting those schedules. At KU's option the entire project may be designed and bid to a single general contractor for phased implementation as funding becomes available.

Project Budget (All Phases)

Construction Costs

General Conditions	350,000
Site Utilities, Tunnel Repair	1,100,000
Earthwork, Parking, Roads, Walks, Site Walls	3,035,000
Landscaping, Site Amenities, Signage	250,000
Hazmat Abatement	40,000
<u>Street Lighting</u>	<u>725,000</u>
Subtotal - Construction Costs	\$5,500,000

Miscellaneous Costs

Fees - Consultants, State & KU Agencies	660,000
Printing, Shipping; Misc.	5,000
Construction Testing & Geotechnical	300,000
Infrastructure Renewal Fee	105,000
<u>Bidding & Construction Contingency (7.5%)</u>	<u>410,000</u>
Subtotal - Miscellaneous Costs	\$1,480,000

Total Project Cost (All Phases) \$6,980,000

Notes:

- 1) Funding is proposed to come from a combination of university resources and educational building funds.
- 2) Scope of each phase will be adjusted to fit available fiscal year funding and anticipated bidding climate.
- 3) Initial Funding will be for design only

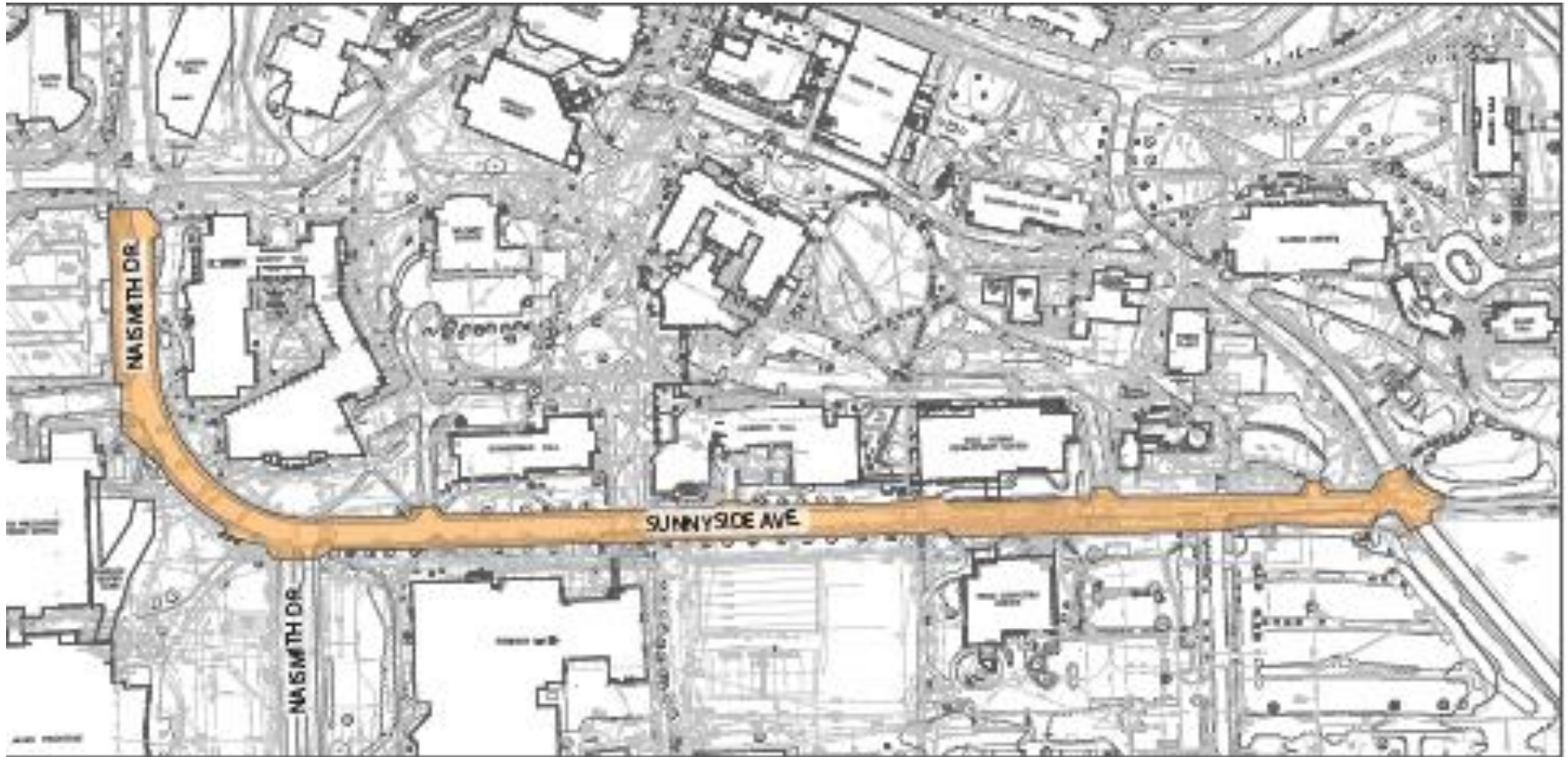
Project Schedule

Design

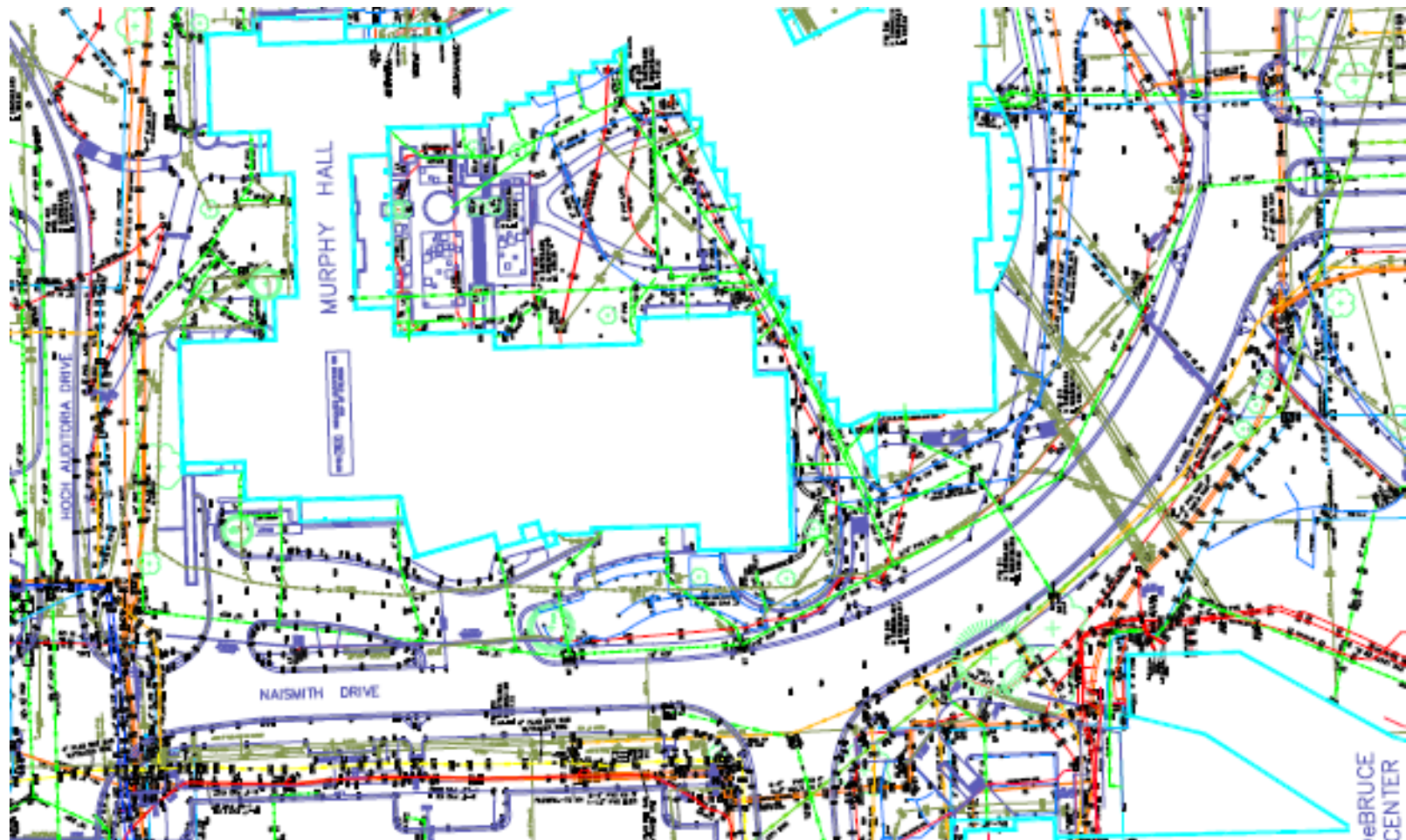
Advertise/Receive A/E RFQ Submittals	July 2021
SBAC Shortlists A/E firms	Aug. 2021
A/E Interviews / Selection	Sept. 2021
Negotiate Fees; Start Design	Sept. 2021
Schematic Design (2 mo.)	Nov. 2021
Design Development (2 mo.)	Jan. 2022
Complete CD's, Submit for Permits (6 mos.)	June. 2022

Construction – Phase One TBD

Existing Site Plan – Overall Scope



Existing Utility Plan – Naismith Drive



Existing Utility Plan – West Sunnyside Ave



Existing Utility Plan – East Sunnyside Ave

